An Account
of the
Yellow Fever
as it
occurred in Charleston S. C.
in the
Summer of 1824
by
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In the following pages will be found an account of the Yellow Fever as it occurred in Charleston South Carolina in the Summer of 1824.

Before however commencing my description of the Fever, it will be proper to give a short account of the Diseases which preceded it, and then go on to state the order in which I intend proceeding.

The Hooping Cough, Dysentery, and Bilious Remittent-Fever, were the Diseases most common previous to the Yellow Fever' appearing, the first cases of Hooping Cough came on in the Spring, after which, it prevailed Epidemically for the first time in ten years, it did not however, appear in a more aggravated form than usual.

The Dysentery, which next to the Hooping

Cough was most prevalent, appeared with great violence, accompanied with severe Hepatic symptoms.

The Bilious Remittent was also very violent, particularly in foreigners, so much so, as to draw the following remark, from several judicious Practitioners, viz: that had the Yellow Fever prevailed at the time, they would unhesitatingly have termed it such.

These Diseases continued at their height until the begining of August, after which they began to decline, or if they now appeared, their type was changed to that of the prevailing Fever.

The order in which I intend proceeding will be first to give the average degree of heat of the Summer, and then the highest, and lowest degrees, together with the appearances of the weather, and the winds which were most

prevalent, from the last of July, up to the 5th of October, at which time I left the City.

I then go on to state the time of the Fever first appearing, and the situations in which it occurred, and to which it was cheifly confined, and the persons attacked, after which, I will enumerate the Causes, — Symptoms, mode of treatment which was found most efficacious, and the Post Mortem Examinations, bringing up Cases at the end of the Essay in support of whatever may be stated.

Towards the middle of June we had a week of almost continued Rain, after which, the Weather cleared away and from that time up to the 25th of July not a drop fell, the Dews were also very slight, in — consequence of which, the heat rose to a degree, which it was almost impossible to

bear, the Thermometer ranging from 90, to 104,
On the 25th of July there was a heavy
fall of Rain, from which time, we had
slight showers every day in the week succeed=
=ed by an intensely hot Sun, the heat
averaging at 9, o'clock, A. M. 78½. at 12, o'clock,
81. and at 3, o'clock, P.M. 87. the highest degrees
at the hours above mention'd, were 87. 88½. and
91. the lowest degrees, were 73. 69. and 73.

The Wind, from the time at which I
commenced taking Notes, viz: the 25th July
prevailed mostly from the South, changing to
S. W. to W. to N. W. and N. E. and from that
up to the 5th of Oct: a period, of better than two
months, there was thirty eight days on which
it either, Rained, a part or was cloudy a part,
succeeded by a scorching Sun.

The first Case of Yellow Fever that
appeared, was in Thos: Mitchell, a Native of

Philadelphia, who had been residing a few weeks in Charleston, he was admitted into the Poor House Hospital, on the 6th of August, in the third day of the Disease, and died in less than twelve hours after his admission.

The situations in which it first occurred, were Bedons Alley, and Elliot Street, both places, alike remarkable for their filthy, and ill ventilated Houses, and which are chiefly inhabited by Sailors, and Stranger Mechanics, it next appeared, among the Crew of a Liverpool Ship lying at a wharf, the Dock, of which being filled with Matter of every description, was cleaning while said Ship was lying at it, after this, it showed itself in different parts of the City, though the situations were generally close and ill ventilated.

The persons attacked in the first

three weeks of the Disease, were invariably Strangers, (by the term Strangers, I mean those who have not lived more than four, or five, years in Charleston, or have been absent during a season that the Yellow Fever prevailed) after that period, it appeared to threaten Natives, as there were several Cases of native adults, in these however it appeared in a milder form, and particularly so, in those who had been subjects of Intermittent fever, it was also more manageable in those, who had been previously salivated for some other Disease. the persons attached, were generally of a full, and plethoric habit; it was however in some Cases the reverse. Males, were also more subject to the Disease than females.

Causes. _ The causes of this Disease, have been very frequently enumerated by different respectable authors, but it will be necessary

that I should also state them, to preserve the order which I at first proposed keeping, they are Marsh Miasma, and the effluvia arising from putrid Animal, and Vegetable substances, together, with a peculiar vitiated state of the atmosphere, consequently, when the weather is such as to increase these exhalations, and the decomposition of Vegetable, and Animal matter, so must the number of Cases, and the virulence, of the Disease increase, and that such was the state of the Weather in Charleston during the last Summer, will appear from a reference, to the account of the Weather, at pages 3rd & 4th.

As to the Disease being kept up by contagion it will be necessary to say but little, on that subject, as it is an opinion now pretty generally exploded, but to prove that it is not, I will merely state one fact, which

I think should carry conviction with it, it is that in the Marine Hospital of Charleston, numbers of cases of Yellow Fever would be lying in the same Ward, and within a few feet of Men, utter strangers to the climate, yet, there was not an instance of one being attacked, it may be advanced, in opposition to this, that they were then under the influence of Medicine, but it would not hold good, as there were numbers of cases of Chronic — Rheumatism which were not then, nor had they been, under the operation of Medicine for some weeks.

Symptoms. — This Disease, was most frequently ushered in by a sense of lassitude, together with a slight chill, it generally, made its first appearance at night; so that the chill would at times pass away without being perceived, the patient being asleep at the

time of its coming on, and when they awoke the only symptoms noticeable would be pain in the head varying from a dull, uneasy sensation to that of the most exquisite agony, described by them as if a cord, was tightly drawn across the fore part of the Brain from one Temple to the other, there were also pains in the back, and lower extremeties, these were not always present, but frequently occurred.

The heat of the body was intense, while that of the extremeties, was natural or cool the pulse, varied from a state of depression, to the open inflamatory, the face, was generally red, and in some cases almost scarlet, the eyes were watery, and the vessels of the adnata turgid with red blood, the turgescence of the vessels however, was not at first always apparent, but was easily seen by raising the upper lid.

The countenance, was usually expressive of great anxiety, and the thirst, to use their own

language was inconceivable.

The Stomach was at this time generally irritable, and in many cases there was pain on pressure over the Epigastrium, this irritability, was commonly increased after taking water, or liquid, of any kind and when vomiting took place, there were small quantities of Bile discharged with whatever the Stomach happeni'd to contain at the time.

The tongue was whitish, with a streak of red along its sides, and it sometimes had a slight brown fur upon it.

The secretion of Urine was diminished. at the commencement of the Disease it was natural in colour, but as it advanced became of a deep yellow: and there was one case, in which the patient died in thirty six hours after the attack, that none at all was secreted.

The bowels were very torpid, and in the most severe forms of the Disease, nothing was passed

but mucus mixed with water, the operation of Cathartics being confined apparently, to the small Intestines alone.

This is an outline of the developed form of the Disease, for the first few days, but there were occult cases, which as far as my observation went, appeared chiefly in those who had resided several years in Charleston, but were not yet perfectly climatised, in these cases, the patient would not complain of much pain any where, and would insist that he was but slightly sick, his coun= -tenance however would be expressive of the greatest anxiety, the temperature of the body would be increased, and the face assume a dusky red colour, and look as if it had been oiled, in one case there was free diaphoresis all throughout the Disease, there would in fact apparently be nothing, or very little the matter with the patient, until the seventh, ninth, and fourteenth,

days, when he would Die, seemingly on the eve of recovery, such cases as these are difficult to describe, but are dangerous in the extreme.

The Disease continued in the way described, until the third, the fourth, and fifth days, when the apyrexial stage would come on, associated with slightly increased heat of body, and thirst, and there would now, sometimes be a return of appetite, and also sickness of Stomach.

The bowels which had been previously opened by medicines, now became obstinately costive, requiring the most powerful Cathartics, in conjuction with Injections, to produce any effect, and when Stools were procured they were either Mucus and water, or looked like dirty water, or like ashes and water. At this time, a tinge of Yellow appeared in the eyes, and on the forehead round the roots of the hair, passing along from that to the neck, breast, and body.

The colour of the face now changes, from the fiery red, to that of a dark Mahogany, or looks as if it were bronzed, and whatever was now vomited, looked like the rinsings of a Port Wine bottle, flocculi being apparent floating in a dark coloured fluid, this went on increasing in darkness until it resembled thick Coffee, or the grounds of Coffee, at this period Debility, Stupor, Delirium, began to come on, the pupils of the eyes were also dilated, and the extremeties presented a mottled appearance, in the severer forms however, this was present from the commencement; it may in its appearance be compared to a limb, that has been exposed some little time to a fire. This state lasted without a return of pain, and the patient was carried off either by Delirium, Convulsions, or Subsultus tendinum, and sometimes, by a gradual prostration of the arterial System.

Treatment. — The mode of treatment which was

found most efficacious, consisted in prompt and active evacuation, first by the Lancet, bleeding the patient until faintiness was produced, and then commence purging with the Sulph: Magnes: dissolved in a decoction of the Polyg: Senegæ, or Serpentaria, so as to produce from twenty, to thirty, or forty, evacuations during the first twenty four hours. the Serpentaria was found to answer as a diaphoretic in this Disease better than the Polyg: Senegæ in consequence of its being less liable to — produce Nausea, which is always to be avoided, in addition to these sponging the body with cold vinegar and water, and giving the shower bath, were both found very serviceable. if after this the fever still continued the same plan of — treatment was to be resorted to for the next twenty four hours. and by the adoption of such active measures in a large majority, the Disease was

strangled in the bud.

Should this however not be the case, resort was then had to Mercurials, giving the Sub: Mur: Hyd: gr: x every hour alternated with Sulph: Magnes: ℥ss dissolved in a cupful of the decoction of either of the Snake Roots mentioned in the preceding page. By commencing with Mercurials, previous to the Apyrexial stage coming on, Ptyalism was generally brought on in thirty six, or forty eight hours, and frequently in twenty four, after which they were generally considered out of danger. (Should that stage have arrived however, it is astonishing what immense quantities of the Sub Mur: Hyd: may then be taken without producing any effect, otherwise than slightly cathartic, as exemplified in the case of Robt: Warren at the end).

No Disease however presents a greater variety of symptoms, which are often left to be depended upon

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than this, for sometimes it goes on with every — favourable appearance, then changes to the worst, and again, patients seemingly in a state of convalescence expire in a few hours.

When the apyrexial stage came on, we were then governed by circumstances, and if the patient was not too much reduced by previous evacuants, they were still continued, but while with one hand we pull'd down, with the other we put up, by administering Whey, Wine, Brandy, Cayenne pepper, Lunar Caustic, Yeast, &c &c every half hour, or hour, according to circumstances.

In general however the Lancet was not admissible after the first twenty four hours, though cases did every now and then occur, in which it was used with advantage in all stages of the Disease.

Prognosis. The prognosis was considered

unfavourable, when the Disease had advanced twenty four hours, before the proper treatment was commenced, when the temperature of the body was increased with great thirst, while that of the extremeties was diminished, or natural, when the congested appearance of the face existed to a great degree, and when the mottled took took place early, when the patient on going to sleep, was disturbed by unpleasant dreams, when the irritability of Stomach was considerable, accom=panied with hiccoughing, and when the Stools looked like dirty water, or ashes and water, or were Mucus mixed with water, &c. &c. when the comatose state was considerable, and in the occult cases, when the anxiety of countenance, and restlessness, were great. The symptoms which would be generally found favourable, were when the Disease had been attacked within the first few hours, and full, free, and copious evacuations, brought

away, at first feculent, then watery with flocculi, and deeply tinged with dark green Bile, when free Diaphoresis was brought on early, when the temperature was equally diffused, and when there was no determination of blood to the head, nor restlessness, with the countenance natural, when the patient sleeps quietly without dreaming, and when the irritability of Stomach, together with pain over the Epigastrium had entirely subsided.

Peculiarities of the Disease. — The peculiarities of this Disease the last Summer, were that there was a greater determination to the head than usual, and less to the Stomach, the Delirium, was generally of a pleasant kind, the patient continually laughing, in many instances there was no black vomit thrown up, but quantities of it were discharged by Stool, this was very generally found to be a

favourable symptom, and in Children particularly so, in these, the apyrexial State was not clearly marked, and the sallowness of the eyes and mahogany colour of the face was rarely present.

Post Mortem Examinations.— On opening the abdomen all the adipose matter cut through was tinged of a bright yellow, the Peritoneum looked perfectly healthy, but the omentum was somewhat inflamed its vessels being enlarged and turgid with blood, when this was removed, the Stomach and Intestines externally, presented a highly inflamed appearance, the Liver was generally of a natural colour, but slightly contricted, the Gall bladder was at times full, and at others almost empty, when the Stomach was cut into, it was frequently found filled with black vomit, mixed with whatever medicines had been taken some little time previous to Death, its vessels were

always very much enlarged, and its coats in a high state of inflamation, and very often there were specks of ulceration discoverable on them.

When the Gall bladder was cut into, it was at times found very much inflamed, and the Bile which it contained differed, in different subjects, in some, being perfectly fluid and of a dark green colour, in others of a black, and ropy, consistence some what like Tar, and in others, of the same appearance but fluid, in one instance, it had no Bile in it, but was found to contain half an ounce of blood, as will be seen in the case of Johnston at page 25. The Intestines were always filled with matter similar to the black vomit, and their inner coats highly inflamed, the contents of the chest showed no marks of Disease excepting a great determination of blood to the Lungs.

On removing the upper part of the Skull

the vessels of the Dura Mater were found enlarged, and injected with blood, when this was taken away those of the Brain, were likewise found enlarged, and injected, with blood, those of the right Hemisphere in some instances were more so than the left, the Ventricles contain three or four Drachms of Serum, and at times as much dissolved blood.

Cases. — Case 1st —

Robert Warren aged 18 years, Native of Ireland, and Seaman of the ship Mary Catharine, of Liverpool, was admitted into the Poor House Hospital on the 14th of August. The account which he gave of himself was, that on the evening of the 11th he was taken with a heat, and flushing, of the face, heaviness about the Calves of the legs, and Head ache, says his Capt: gave him a purgative on the 12th which operated very well, He was seen for

the first time by a Physician on the morning of the 14th at 10 o'clock. He was of a plethoric habit. his face was very much flushed, and the vessels of the uvula were tinged with red blood, his body was hot, and extremeties cool, his pulse was full, frequent, and compressible, and the sickness at Stomach, and thirst, were very great. xxij of blood were immediately drawn from him, and Sub Mur: Hyd: gr x given every hour alternated with Sulph: Mag: ℥ss after bleeding his pulse was but little altered. he however felt a glow over his body, at ½ past eleven, the warmth was more generally diffused, he was entirely free from pain, and disposed to sleep, 20 Minutes to one. sickness at Stomach increasing, he threw up black vomit; heat of skin increased, and pulse going at the rate 112 beats in a minute; Sub Mur: Hyd: and Sulph Magnes: continued. there was constant sighing. at 1 o'clock. gave him the shower

bath which reduced his pulse to 92, the volume and frequency were likewise reduced, and the desire to vomit lessened, there was now for the first time, slight Epigastric tenderness, and a blister was applied to Epigastrium. ½ past two. he vomited again, and has had a copious fetid evacuation entirely free from bile. 4 o'clock the same treatment was continued, increasing the dose of Cal: to ℈j and ordered Ungt: Mer: Fort: ℥j to be rubed into his groins, Arm pits, and over the region of the Liver, every two, or three, hours, this treatment was continued for thirty six hours after his admission, when he Died, during which time, he took Seven Hundred, and fifty grains, of the Sub Mur: Hyd: and had several ounces, of the ointment applied externally, without producing any other effect than as a purgative, and that in a very slight Degree.

Post Mortem Examination. On opening him, the vessels of the Omentum were found injected with blood, and when this was taken away, the Stomach, and Intestines, externally appeared very much inflamed. the Liver was natural in colour, and slightly constricted, his Gall bladder was filled with a dark green fluid bile, and on cuting into the Stomach, it was found to contain about ℥ij of black vomit, mixed with Calomel, the Intestines contained the same matter, their inner coats were very much inflamed, and several specks of ulcerations, were seen on those of the Stomach. There was a great congestion of blood in the Lungs. the vessels of the Dura Mater, and Brain, were somewhat enlarged, those of the right, more than the left Hemisphere, the ven= =tricles contained about an ounce of Serum.

Case 2nd

Case 2nd

Johnston, a Seaman, and Native of Prussia, was admitted into the Marine Hospital on the evening of the 18th of August. The account which he gave of himself was, that on the afternoon of the 18th he was taken with a chill, succeeded by an intense pain in the head, back, and calves of legs. He was seen for the first time by a Physician on the 18th at 10 o'clock P.M. at which time there was great thirst, heat of Skin, and irritability of Stomach, with a pulse going at the rate of 190 beats in a minute. He was immediately put in to the cold bath, which reduced his pulse to 120, as also the heat of skin, after which the Sub Mur: Hyd: ℈j and Sulph: Magnes: ℥ss dissolved in a cupful of the Infus: of Serpentaria were administered alternately every hour, and a blister, applied to the Epigastrium. 19th Skin, still very hot,

and dry, pulse 108 beats in a minute. the medicine, had operated very well through the night, the irritability of Stomach however increasing, the Sulph: Magnes: and Infus: Serpentaria were left off, and the Sub Mur: Hyd: alone continued, this plan of treatment was pursued occasionally, giving small doses of Jalap, until the morning of the 20th when he was found rapidly sinking, it was then discontinued, and Blisters, and Sinapisms applied, and Stimuli, given internally, he however Died in about forty eight hours after his admission.

Post Mortem Examination. On cutting into the abdomen, the Omentum, Stomach, and Intestines, presented one sheet of inflamation the Liver was very pale, and constricted, the Gall bladder was inflamed externally, and on opening it, was found to contain about half an

ounce of blood, it was also very much inflam-
-ed internally. the Stomach was filled with
black vomit mixed with blood, and its
vessels were enlarged to the size of a small
quill. the Intestines were filled with the same
matter as the Stomach. The Brain presented
the same appearance that; that of an Apo-
-plectic subject does, the Ventricles containing
three, or four drachms of blood. The contents
of the Thorax were healthy.

As each of the above Cases died, it may
appear that the plan of treatment adopted
was incorrect, they were not brought foward
however, to prove the efficacy of the plan, but
merely to give a correct view of the Post Mortem
Examinations. and to show with what violence
the Disease proceeded unless taken in the bud.

Navy Yard

Ch 142

1826

Medical Observations made during a short period on the Western Coast of Africa.

Geo. Jarrill